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ABSTRACT

This teaching manual is the third in a series of seven designed for use in bilingual/bicultural programs. The subject discussed here is the influence of socialization practices on children's cognitive styles and in particular, children's learning styles, and the implications this has for bilingual/bicultural education. The characteristics of field sensitive and field independent cognitive styles are described, followed by a discussion of the relationship between cognitive style and culture and socialization styles. An illustration of this relationship is drawn from the situation of Mexican-American children, who typically score in a field sensitive direction on tests of cognitive style. Such scores are thought to result from the traditional Mexican-American emphasis on family loyalty and a close interpersonal relationship between mother and children, values that encourage field sensitivity. An appreciation of the diversity of cognitive and socialization styles must precede the planning of culturally democratic educational environments. A manual of self-assessment units accompanies this series. (Author/AM)

No. 3

NEW APPROACHES TO BILINGUAL, BICULTURAL EDUCATION

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DEDICATION

This series of teacher-training materials is dedicated to Dr. George I. Sánchez, pioneer in bilingual, bicultural education.

ED108497

Introduction to Cognitive Styles

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FOREWORD

New Approaches to Bilingual, Bicultural Education is a series of teacher-training materials developed under an E.S.E.A. Title VII grant for the use of bilingual, bicultural projects. The materials propose a new philosophy of education called "cultural democracy" which recognizes the individuality of both teachers and students. By using the documents and videotapes, teachers and teacher associates can carefully study their own classroom techniques and the learning styles of their students. They then can use their new knowledge in ways which will best serve the needs of individual children.

The manuals in this series were edited by Pam Harper, staff editor, DCBBE. Covers and title pages were designed by Sarah Frey, assistant editor, DCBBE. Requests for information concerning the documents in this series should be addressed to the Dissemination Center for Bilingual Bicultural Education, 6504 Tracor Lane, Austin, Texas 78721. Accompanying videotapes are available from Videodetics, 2121 S. Manchester, Anaheim, California 92802.

Juan D. Solís, Director
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PREFACE

This "teaching manual" is the third in a series of seven commissioned by the U.S. Office of Education in connection with the Bilingual Education Act (E.S.E.A., Title VII).* The manuals, with accompanying videotapes and self-assessment units, are intended for use in bilingual, bicultural programs. It is envisioned that the materials will provide useful information about the education of culturally diverse children.

The manuals cover a wide range of topics, including educational philosophy, cultural values, learning styles, teaching styles, and curriculum. The three videotapes supplementing each manual review and illustrate subjects presented in the manual. Three self-assessment instruments of a "programmed" nature may be used to conclude the study of each manual. These evaluation instruments are designed both as a review and as a means of emphasizing important concepts.

The manuals, videotapes, and self-assessment units comprise a carefully designed course of study for persons engaged in bilingual, bicultural education. It is our sincere hope that the course of study will prove useful to such persons as they participate in this exciting and promising frontier of education.

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COMPONENTS OF THE SERIES

NEW APPROACHES TO BILINGUAL, BICULTURAL EDUCATION

Teacher-Training Manuals — seven individual documents

1. A New Philosophy of Education
2. Mexican American Values and Culturally Democratic Educational Environments
3. Introduction to Cognitive Styles
4. Field Sensitivity and Field Independence in Children
5. Field Sensitive and Field Independent Teaching Strategies
6. Developing Cognitive Flexibility
7. Concepts and Strategies for Teaching the Mexican American Experience

Self-Assessment Units — one document

Includes three self-administered evaluation instruments for each of the seven manuals described above.

Videotapes

Three videotapes are available for each of the seven manuals described above. Each tape corresponds with a self-assessment unit. Further information regarding videotapes is available from the distributor, Videodetics, 2121 S. Manchester, Anaheim, California 92802.

NOTE

The components of this series may be used either individually or together. Every effort has been made to develop a flexible set of materials so that projects can choose which components are most helpful to them.

INTRODUCTION TO COGNITIVE STYLES

Overview and Introduction

In Manual No. 1 ("A New Philosophy of Education") we stressed the importance of creating educational environments that "meshed" with children's home and community socialization experiences. Educational environments which meet this requirement are said to be culturally democratic.

It is important that teachers know something about the socialization practices of different cultural groups. The second manual of this series is intended to provide teachers with information of just this kind. In this manual, we want to consider the influences of socialization practices on children's cognitive styles and, in particular, children's preferred learning styles.

Children's preferred cognitive styles and preferred learning styles are the central issues of this and the following manual. For this reason, it would probably be helpful to give some examples of what we mean by preferred learning style. Consider the case of a teacher who is trying to teach math to two very different students. The first student is not interested in the usual commercial math curriculum, but the second student works well with the same materials. The second student enjoys competing with other students and trying to beat classmates (and sometimes the teacher) to a correct answer or a novel solution to a math problem. The first student, however, prefers to work in cooperation with other students and the teacher and often uses the teacher as an example or model when working on assignments. In time, the teacher learns that math lessons will be effective with only one of the two students unless special care is taken to modify the lessons. For one child, commercial math materials are altered to include humor and fantasy (as in the Sesame Street or the Electric Company television programs). The materials are adapted to group teaching and allow children to cooperate with one another to learn and apply new concepts. The teacher takes care to encourage the children with warm reassurances and to provide clear-cut instructions. The teacher uses another strategy for the other child. The instructional materials tend to be very much fact centered and contain little or no reference to fantasy or students' personal experiences. The teacher emphasizes the importance of individual effort on the part of students and often encourages competition. Instructions are clear, but the teacher leaves enough unsaid to stimulate the students to discover concepts for themselves.

Whether or not the reader has thought of individualizing math instruction along these lines, every teacher knows that children differ widely from one another in the ways they go about learning. A teaching approach that works well with one student doesn't work nearly as well with another. Why is this? We will try to answer this question in this manual. In particular, we will attempt to trace children's preferred cognitive styles to children's home and community socialization experiences. As suggested in the last manual, the ways in which parents socialize their children follow from values and beliefs that are often culturally unique. These values lead parents to encourage certain human relational styles, communication styles (including language), incentive-motivational styles, and learning styles. Children become familiar with these "styles," which are then interwoven into their ways of interpreting the world around them and responding to it. In the remainder of this manual, we will use the concept of "cognitive style" to express this idea. In the following pages, we will explain the

meaning of this concept, provide examples, and indicate the usefulness of "cognitive style" for understanding differences in children's preferred learning styles.

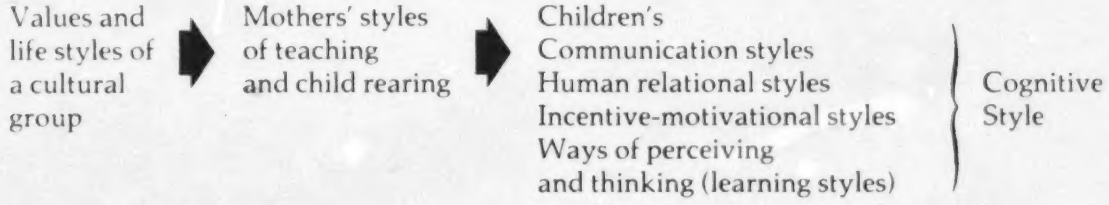
What Is Cognitive Style?

The word **cognition** really means nothing more than thinking or knowing. This term has typically been used to express the idea that people differ from one another in the ways they think and process information. The emphasis is on the **way** of perceiving the environment and organizing information about it. Consider a simple example. A person scans a large wall mural and becomes engrossed with the artist's treatment of small details. The person steps closer and studies the use of forms and colors. Another person inspects the same mural and comments on the effect of the mural as a whole: "Rivera really captured the mood of that period in Mexican history."

Both persons had the opportunity to perceive the many different aspects of the mural. Why did one center his attention on the details while the other responded to an overall impression? This is the kind of question that researchers have tried to answer by studying "cognitive style." As our example suggests, cognitive style is partly concerned with the importance people attach to parts or wholes. Some people have a style of perceiving the world in such a way that the smallest details almost always stand out. Other people overlook the small details, preferring instead to see the "big picture." This tendency is characteristic of most persons we will later describe as "field sensitive."

Cognitive style also refers to differences in noticing social aspects of the environment. Some people tend as a matter of habit to focus on other people's facial expressions and moods. They are extremely sensitive to nonverbal indications of feelings. Other people ignore these cues in favor of physical features of the environment. Every teacher has noticed how school-age children differ in this respect. Some children prefer a math lesson which gets right down to the facts: "This line is exactly one inch longer than that line." Other children are put off by this approach. They may prefer the Sesame Street approach in which the shorter line expresses some feelings about being the shortest part of the triangle. To these children, lines as lines are not meaningful unless they are given human or social attributes.

These examples indicate that cognitive style is revealed by the ways we think and act in many different situations. Not all of these situations involve performance on complex mental problems. The meaning of cognitive style must, then, include more than just sensitivity to wholes or parts. In the remainder of this manual, we will consider cognitive style in its broadest psychological sense, that is, how it relates to differences between persons in human relational, communication, incentive-motivational and learning styles. Cognitive style is a useful concept for summarizing the other styles we've discussed. This is presented in the chart below.


Values and life styles of a cultural group
Mothers' styles of teaching and child rearing
Children's
Communication styles
Human relational styles
Incentive-motivational styles
Ways of perceiving and thinking (learning styles)
Cognitive Style

The basic idea is that children's backgrounds play a very important role in determining many of the differences that appear so striking to teachers. Of all the differences that concern teachers, differences in learning styles certainly merit careful attention. These differences often appear too complex to be easily understood and used as a basis for individualizing teaching. Yet, as our opening examples suggest, differences in children's learning styles almost always can be broken down into differences in ways children communicate and relate to others, their reasons for achieving, and their ways of perceiving and thinking. What is needed is a way of pulling these differences together, to provide teachers with a practical approach to basing teaching on the unique styles of bilingual, bicultural children. **Cognitive style** provides us with the needed concept. We use this concept to develop a framework for implementing cultural democracy.

Two Kinds of Cognitive Style

The next manual will identify ways of measuring a person's cognitive style. These techniques are used to determine whether a person is primarily **field sensitive**(1) or **field independent**. We have already identified several characteristics of field sensitive persons: they tend to organize their perceptions and experiences in terms of wholes or totalities. They are generally sensitive to the overall **context** (such as a social atmosphere) of objects and events. Their sensitivity to the field or background influences their perception of objects, persons, and social events. By comparison, field independent persons respond to events and objects independently of the field or context. Their selection and organization of information develop from attention to parts, with relatively little attention paid to the total formed by the parts.

Researchers have found may other differences between field sensitive and field independent persons. We have attempted to summarize some of the research findings which have immediate significance for educators. Readers interested in more details of research on cognitive style are referred to the appendix at the conclusion of this manual.

1. Field independent persons perform better than field sensitive persons on tests which involve separating a part from an organized whole or rearranging parts to make a whole.
2. Field independent children tend to be "task centered" in taking tests; field sensitive children tend to glance at the examiner and pay more attention to the social atmosphere of the testing situation.
3. Field sensitive persons appear to be more imaginative in verbally describing social situations. The social environment seems to be more significant for field sensitive persons in other ways. They tend to remember faces and social words better than field independent persons. They are more influenced by expressions of confidence or doubt than are field independent persons.
4. Students and teachers who share a common cognitive style tend to perceive each other more favorably than do students and teachers whose cognitive styles are dissimilar.

(1)Readers familiar with research or writings on the subject of cognitive style will recognize that we have substituted the term "field sensitive" for the more familiar "field dependent." The term "field dependent" will not be used in these manuals or in the corresponding videotapes. The term **sensitive** captures the essential nature of this cognitive style and is neither as negative in connotation nor as value laden as is **dependent**.

5. Field sensitive persons prefer psychotherapists with whom they can establish a personal relationship. Field independent persons, on the other hand, prefer therapists who take a more passive, consultantlike role. Field sensitive and field independent psychotherapists, in turn, tend to prefer the very kinds of client-therapist relationships that field sensitive and field independent persons, respectively, seem to be seeking.

The many differences between field sensitive and field independent persons might lead us to wonder if schools aren't better suited to one cognitive style than the other. In other words, might not the classroom environments, teacher-student relationships, teaching styles, and curriculum of some schools be geared more to field sensitivity or field independence? People who have given serious attention to this question have often concluded that American public schools usually incorporate the field independent communication styles, human relational styles, incentive-motivational styles, and ways of thinking and perceiving (Cohen, 1969; Ramírez and Castañeda, forthcoming). Therefore, the schools do not promote learning within the field sensitive cognitive style.

The almost exclusive field independent orientation of schools could have two undesirable consequences. First, teachers' effectiveness may be limited. This conclusion seems reasonable in light of the common observation that traditional or conventional teaching styles and curriculum work well with only some children. Beyond the question of teachers' effectiveness is the problem of the schools' discrimination against some racial and ethnic groups. Discrimination of this kind would exist if schools accomodated themselves almost exclusively to a cognitive style which is common in one segment of society but not in others. To weigh the likelihood of this possible injustice we must know something about the relationship between cognitive style and culture. This subject is discussed at length in the following section.

Cognitive Style and Culture

In this section we want to consider what is known about cognitive styles of culturally different children. This information will prove valuable later in this series of manuals as we try to gain an understanding of both the unique intellectual strengths and preferred learning styles of bicultural children.

Researchers have studied cognitive style in many different groups. In one study, Black and Native American children were found to be primarily field sensitive (TenHouten, 1971). Other studies have revealed that Mexican American children are primarily field sensitive while Anglo American children tend to be field independent. We will describe some of these studies in detail. The findings are interesting and, in addition, the studies provide an example of the ways in which cognitive style is measured.

In one study (Canavan, 1969), the Man-in-the-Box Test (similar to the Portable Rod and Frame Test discussed in the following manual) was administered to over 1,000 children in several schools in the Riverside (California) School District. The children were selected from kindergarten through sixth grade classrooms. There were nearly equal numbers of Mexican American children (596) and Anglo American children (571). The findings of this study indicated that Mexican American children, regardless of age and school attended, tended to be more field sensitive than Anglo American children (who tended to be field independent).

A second study of cognitive style among Mexican Americans and Anglo Americans was

conducted in Houston, Texas, by Manuel Ramírez III and Douglas Price-Williams (in press). In this study 120 fourth graders, 60 Mexican Americans, and 60 Anglo Americans of the same socioeconomic class and religion (Catholic) were tested with the Portable Rod and Frame Test. Mexican American children were found to be more field sensitive than Anglo American children. It is interesting to note that test scores of many Anglo girls were very similar to those of Mexican American boys, emphasizing the often unsuspected diversity which exists in the Anglo group.

Yet another study was conducted with the support of the United States Office of Education, Division of Bilingual Education, in the 1971-1972 school year by the present authors (Ramírez, Castañeda, and Herold). (A detailed report of this study is available from the Dissemination Center for Bilingual, Bicultural Education in Austin, Texas.) The Portable Rod and Frame Test was used as the measure of cognitive style in children. Cognitive style in the children's mothers was determined by rating their drawings of human figures (Draw-a-Man Test). Cognitive style was related to children's ethnic background and, as well, to the prevalence of traditional Mexican American values in different communities.

We expected to find in our study that cognitive style of Mexican American children and their mothers would be clearly related to the nature of the community in which they lived. Specifically, we expected field sensitivity to be the most typical cognitive style in the community which adhered closely to traditional Mexican American values. Another community, "dualistic" in terms of an apparent mixture of American middle class and traditional Mexican American values, was expected to occupy an intermediate position on the field sensitivity-field independence continuum. Field independence was expected to prevail in the highly urbanized and acculturated Mexican American community (a suburb of a large metropolitan center in the Southwest).

The expectations were confirmed. Both the Mexican American mothers and their children (first, fourth, and sixth graders) in the rural, mostly Spanish-speaking community, clearly tended to be field sensitive. In an extensive home interview, these mothers acknowledged agreement with traditional Mexican American values. These values also appeared to form the basis of their child-rearing practices. The mothers emphasized indentification with the family, adherence to Mexican Catholic ideology, teaching respect to children, and the importance of children's being attentive to the needs of others.

The second community differed from the first in a number of important ways. For one, English is the primary language of many Mexican Americans in this community. Slightly less than one-quarter of the Mexican Americans in this community report being Protestant. The ethnic solidarity of the first community contrasts with frequent intermixing of ethnic groups in the second community. While the majority of residents are Mexican American, a substantial number of Anglo families reside in the community and occupy influential community positions. Not surprisingly, the Mexican American mothers in this "dualistic" community less often supported traditional Mexican American values than did the mothers in the "traditional" community. Many of their child-rearing practices emphasized early separation from the family, achievement for the self, and assimilation into American life. The Draw-a-Person Test identified these mothers as generally more field independent than mothers in the traditional community. Their children, in turn, scored in a more field

independent direction on the Portable Rod and Frame Test than did children of the same ages in the traditional Mexican American community.

The third community ("atraditional") differed from both the traditional and dualistic communities. Not only is English the primary language among Mexican Americans in this community, but few of the adults are bilingual. The Mexican American adults work, play, and live side by side with Anglo Americans. Their children attend ethnically-mixed schools. Pressures to adopt mainstream American values and life styles are far more evident in this community than in the dualistic community. Social prestige and recognition (such as political office holding) are afforded persons who appear more mainstream American than Mexican. Although many Mexican Americans in this community still identify themselves as Catholic, Catholicism does not influence their day-to-day living to the degree it does in traditional communities. Many of the Mexican American families in this atraditional community are active members of Protestant churches.

The effects of these acculturation pressures were clearly revealed in the home interviews. The mothers reported being less identified with traditional Mexican American values. They attached relatively little importance to identification with the family and ethnic group. Respect for authority figures and for tradition was not stressed by these mothers. Instead, they favored individual achievement and development of a separate, individually unique identity.

We anticipated that the Mexican American mothers and children in the atraditional community would be field independent. This was in fact true. The mothers and children in this community differed markedly in this respect from the mothers and children in both the traditional and dualistic Mexican American communities.

Cognitive Styles and Culturally Distinct Socialization Styles

How can cultural and community differences in cognitive style be explained? The answer is suggested by the finding of two important studies. The first is Dyk and Witkin's 1965 study of socialization practices and cognitive style. These researchers conducted extensive home interviews with the parents of children who had scored in either a pronounced field independent or field sensitive manner on the Portable Rod and Frame Test. The parents of field independent and field sensitive children differed from one another in several ways. Some of the most clear-cut differences were revealed in studying the closeness of the relationship of the mother to her child. The research findings suggested that the following characteristics were particularly common among parents whose children were field sensitive:

1. Relationship between mother and child is strong. Emphasis is placed on child's identification with the family.
2. Mother stresses culturally approved kinds of social behavior and, as well, respect for convention. The child is encouraged to emulate adult behavior early in life.
3. Mother involves others, especially members of the family, in socializing the child and sees her meaning in life as tied to the child. She appears to live vicariously through the life and activities of the child.

A closely related study has been reported by Dershowitz (1971). The research compared cognitive styles of New York boys from Orthodox Jewish families to Anglo-Saxon Protestant

boys living in New York. The study was based in part on the assumption that the Orthodox Jewish family embodies many of the qualities which Dyk and Witkin found in the socialization experiences of field sensitive children. Specifically, Dershowitz characterized the Jewish family as closely knit. In contrast to the father (who is only minimally involved in child rearing), the mother is dominant and encourages her children to form a close relationship with her. These interpretations led Dershowitz to predict that Orthodox Jewish boys would score in a more field sensitive direction on measures of cognitive style than Anglo American boys. The findings supported this prediction.

An additional aspect of the study deserves mention. Dershowitz compared the first two groups of subjects to a third group of boys from more assimilated Jewish families. Dershowitz reasoned that the socialization practices of the assimilated Jewish families would have much in common with the socialization practices of Anglo-Saxon Protestant middle class families. For this reason, he expected that the test scores of these boys would be intermediate—less field sensitive than the Orthodox Jewish boys, but less field independent than the Anglo boys. This expectation was borne out by the research findings.

The research studies of both Dershowitz and Dyk and Witkin parallel the authors' research with Mexican Americans described earlier in this manual. Children from "traditional" Mexican American families were found to be most field sensitive. Field independence was more evident among Mexican American children whose families lived in communities where Mexican Americans are rapidly becoming assimilated into the American middle class. Children from a partly traditional, partly assimilated Mexican American community tended to occupy an intermediate position with respect to cognitive style.

Other Consequences of Culturally Distinct Socialization Practices

We mentioned earlier that cognitive style is a convenient concept for pulling together communication styles, human relational styles, incentive-motivational styles, and ways of perceiving and thinking. Up to this point we have been concerned mostly with the fourth aspect of cognitive styles, ways of perceiving and thinking. This topic has actually been approached only from the standpoint of perceptual tests (such as the Rod and Frame). We know that cultural experiences influence children's performance on such tests. How does culture affect children's performance on other aspects of cognitive style?

Researchers have provided us with several interesting answers to this question. One research team has found that, regardless of socioeconomic status, Jewish children are superior on tests of verbal ability but not superior on tests of space conceptualization (where they perform less well than children of other ethnic groups). The reverse (superiority in space conceptualization) tends to be true of Chinese children. After comparing differences between Chinese, Jewish, Negro, and Puerto Rican children, the researchers concluded that "Different kinds of intellectual skills are fostered or hindered in different cultural environments" (Lesser, Fifer, and Clark, 1965; see also Stodolsky and Lesser, 1967).

This same conclusion is also supported from studies conducted with Mexican American children (Price-Williams and Ramírez, 1971). In one study the School Situation Picture Technique (described in Manual No. 2) was administered to Mexican American and Anglo American children in a fourth grade Catholic parochial school. The stories told by the

Mexican American children were longer than those told by the Anglo American children. In addition to telling longer stories, the Mexican American children mentioned more characters than did the Anglo American children. The stories of Mexican American students more often referred to close relationships between story characters. The Anglo American children less often described the story characters as caring for one another and seeking comfort from one another. The story characters described by Mexican American children used teachers and adults as models of their own behavior. The achievement themes of Mexican American and Anglo American children also differed. The stories told by Mexican American children emphasized cooperative achievement. The achievement typically benefited the character's family and community. By comparison, Anglo American students tended to tell stories in which the characters achieved by themselves and largely for themselves. Important cultural differences in incentive-motivational styles were also identified in the last manual (p. 10). (Research conducted by Kagan and Madsen indicated that Anglo American children tend to be more competitive than Mexican American children, who tend to be cooperative.)

In another part of the Price-Williams and Ramírez study, children were asked to identify the names of their three best friends and then to "free associate" to these names. For each of the friends, they were allowed ten seconds in which to pronounce the words that the name of the friend brought to mind (e.g., "tall," "friendly"). Anglo American children gave fewer associations per name than did the Mexican American children. In addition to giving more associations, the Mexican American children used fewer synonomous or overlapping terms than did the Anglo American children. The free associations of the Mexican American students covered more categories (such as physical characteristics, social traits, etc.).

This research provides an interesting sample of Lesser's idea that "Different kinds of intellectual skills are fostered or hindered in different cultural environments." With its emphasis on personal relationships and sensitivity to other people, the Mexican American culture seems to foster the development of elaborate and complex ways of interpreting the social environment. The elaborate interpretations of the social environment are complemented by greater needs to affiliate with others, to care for (and be cared for by) others, and to model oneself after others. (This suggests that Mexican American children prefer a teacher-learner relationship in which the teacher provides careful guidance for the student.) Achievement, in turn, is usually viewed as a cooperative effort centered around common goals.

These examples suggest that culture clearly influences a person's way of perceiving the environment and thinking about it. Cultural experiences also establish preferred ways of relating to other people. The concept of "cognitive style" provides us with a useful way of summarizing the many ways in which cultural experiences shape approaches to living.

Conclusion

We have seen that unique "styles" are associated with different cultures. These styles encompass patterns of intellectual strengths, human relational styles, ways of responding to incentives, and, perhaps most importantly, styles of interpreting the world. Cultural differences in these cognitive styles can be traced to particular kinds of socialization practices (which, in turn, are closely tied to values).

From the standpoint of cognitive styles, one of the most crucial aspects of child rearing concerns separation of children from their mothers and families. Field independence is common among children whose families emphasize development of a separate (nonfamily centered) identity. The families of field sensitive children stress closeness between children and parents and the child's identification with the family.

Given this picture, it is not surprising to find that Mexican American children typically score in a field sensitive direction on tests of cognitive style. As does the Orthodox Jewish family, the traditional Mexican American family regularly uses field sensitive child-rearing practices. Central to the Mexican American socialization pattern is emphasis on loyalty to the family and on a close interpersonal relationship between the mother and children. The traditional Mexican American socialization style can be summarized in the following way: (1) Strictness in child rearing, encouraging respect for, and obedience to, authority figures, age, and institutions (especially to the family and the Catholic Church). The strictness, however, is tempered by the nurturance and protectiveness of the mother and older siblings; (2) Loyalty to the teachings of the parents, stressing an obligation to protect members of the family and to enhance the reputation of the family in the community. These experiences result in the child's wanting to achieve for the benefit of the family. Thus the Mexican American child is encouraged to be responsible and independent, and also assertive, as long as he is achieving for the family or protecting it. While the mainstream American is usually encouraged to establish an independent identity, the Mexican American is encouraged always to view himself as a part of the family. He is reared in an atmosphere which emphasizes the importance of interpersonal relationships and the worth of the individual. He consequently develops great sensitivity to social cues and to the human environment in general.

It would be a mistake, however, to think that all Mexican Americans share these experiences or that all Mexican Americans are field sensitive. As explained in Manual No. 2, there is great diversity among Mexican Americans. This point is further documented by the community differences found by the authors among Mexican Americans in both cognitive style and child-rearing practices.

Planning culturally democratic educational environments must follow from an appreciation of this diversity. How, then, is a teacher to plan teaching and curriculum for **different** Mexican American children? If cognitive style determines a child's preferred learning style, how is the teacher to determine the child's cognitive style? The following manual provides the answers to these questions.

APPENDIX

Research Findings Relevant to Comparisons between Field Sensitive and Field Independent Persons (see page 5 of this manual):

1. Field independent persons perform better than field sensitive persons on tests which involve separating a part from an organized whole or rearranging parts to make a whole.
2. Field independent children tend to be "task-centered" in taking tests; field sensitive children tend to glance at the examiner and pay more attention to the social atmosphere of the testing situation.

In attempting to discover why field independent children earn higher I.Q. scores than field sensitive children, Goodenough and Karp (1961) found that field independent children could more easily separate parts from an organized whole and could more easily arrange parts to make a whole. They found these children's performance superior on both the Picture Completion and Block Design and Object Assembly subtests of the Wechsler Intelligence Scale for Children. Cohen (1969) found that field sensitive children attend to wholes and global impressions, frequently overlooking features of test items which form the basis of a "correct" response.

Two studies (Konstadt and Forman, 1965; Fitzgibbons, Goldberger, and Eagle, 1965) have indicated that task-centered behaviors are more apt to be found among field independent children than among field sensitive children. Because most intelligence tests are timed, more points are earned by children who concentrate on the task and work quickly—another factor which favors better performance by field independent children.

Keogh, Welles, and Weiss (1972) and Ruble and Nakamura (1972) indicate that field sensitive children pay more attention to social features of the test-taking situation than do field independent children. They found that field sensitive children tend to look up from their work and attempt to establish some form of social contact with the examiner.

Considering the formality and "professional objectivity" of most test-taking situations, it is apparent that school testing is biased in favor of field independent children because of the nature of the tests and the way in which they are usually administered.

3. Field sensitive persons appear to be more imaginative in verbally describing social situations. The social environment seems to be more significant for field sensitive persons in other ways: they tend to remember faces and social words better than field independent persons. They are more influenced by expressions of confidence or doubt than are field independent persons.

The Thematic Apperception Test consists of a set of realistic drawings of imaginary persons in ambiguous settings. Subjects relate stories to the picture cards which are then scored on several variables. Witkin et al. (1962) found that field sensitive persons score higher on verbal expressiveness, telling longer and more complex stories than field independent persons.

Two separate studies have found that field sensitive children have a better memory for faces and social words than do field independent children (Messick and Damarin, 1964; Fitzgibbons et al., 1965). Objects or events of a social nature seem to have special meaning for field sensitive persons. This conclusion is supported by an interesting study conducted by

Konstadt and Forman (1965). These researchers were interested in learning if field sensitive and field independent children reacted differently to expressions of doubt or confidence by authority figures. Children were told in their classes either "This doesn't seem like the kind of group that can do well—you're not as fast as the other groups" or "This is a very bright group; you certainly have caught on faster than most children." Konstadt and Forman report that the performances of field sensitive children was noticeably affected by expressions of doubt or confidence. Field independent children, on the other hand, performed essentially the same under these conditions as they had in regular classroom settings.

4. Students and teachers who share a common cognitive style tend to perceive each other more favorably than do students and teachers whose cognitive styles are dissimilar.

DiStefano (1970) asked field sensitive and field independent Canadian college students to rate their instructors using semantic differential scales and single adjective scales designed to assess interpersonal perceptions. Field sensitive students generally gave higher ratings to instructors of their same cognitive style. Field independent students gave more favorable ratings to instructors who were field independent. In addition, the ratings and grades instructors gave their students tended to be more favorable in the case of students whose cognitive styles conformed to that of the instructor.

5. Field sensitive persons prefer psychotherapists with whom they can establish a personal relationship. Field independent persons, on the other hand, prefer therapists who take a more consultantlike role. Field sensitive and field independent psychotherapists, in turn, tend to prefer the very kinds of client-therapist relationships that field sensitive and field independent persons, respectively, seem to be seeking.

Witkin (1965) showed that field sensitive persons seek to establish a close, personal relationship with a psychotherapist. Field sensitive patients are responsive to the suggestions of a therapist who participates actively in the therapy by asking questions and generally being accessible as a person. Field independent patients, according to Witkin, do not form a close relationship with the therapist as quickly. In general, they expect the therapist to assume the role of advisor or consultant.

Pollack and Kiev (1963) reported that field independent psychiatrists prefer one of two consultantlike roles: that of listening passively to the patient and withholding advice, or assuming a more direct information-dispensing role. Field sensitive therapists, on the other hand, prefer to establish the kinds of close, personal relationships that field sensitive patients, themselves, seem to prefer.

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